



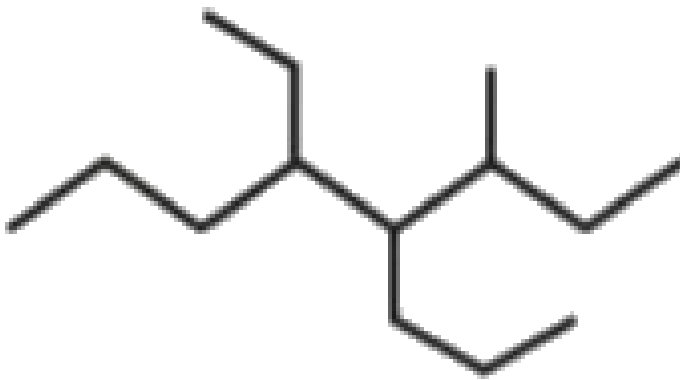
CHEMISTRY

BOOKS - NTA MOCK TESTS

ORGANIC CHEMISTRY - SOME BASIC PRINCIPLES AND TECHNIQUES TEST

Single Choice

1. The correct IUPAC name of the following hydrocarbon is

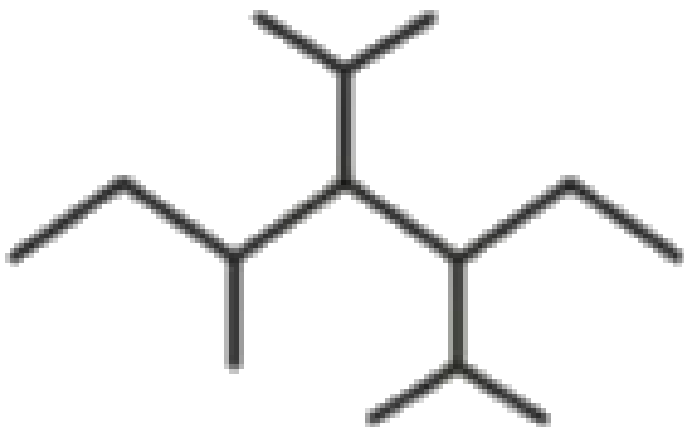


- A. 4- ethyl - 6 - methyl - 5 - propyloctance .
- B. 3 - methyl - 4 -propyl -5- ethyloctane .
- C. 5 - ethyl - 3-methyl - 4 - propyloctane .
- D. 5 - ethyl - 4 - propyl -3- methyloctane .

Answer: C

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2. The correct IUPAC name of the following hydrocarbon is



A. 4,5 diisopropyl -3- methylheptane .

B. 3- methyl -4, 5- diisopropylheptane .

C. 5 - ethyl-4 - isopropyl - 3, 6 -
dimethylheptane .

D. 3 - ethyl - 4 - isopropyl - 2,5-
dimethylheptane.

Answer: D



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3.

What is the correct IUPAC name of above compound ?

A. 2 - hexen -5 - yne

B. 4 - hexen -1 - yne

C. 5 - hexyn -2 - ene

D. 1 - hexyn - 4-ene

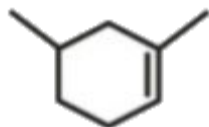
Answer: B



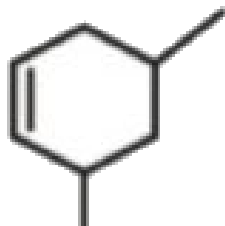
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4. The correct structural formula of compound 1,3 - dimethylcyclohexene is

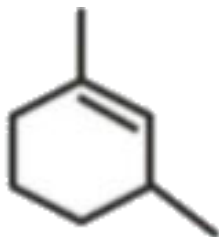
A.



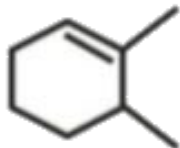
B.



C.



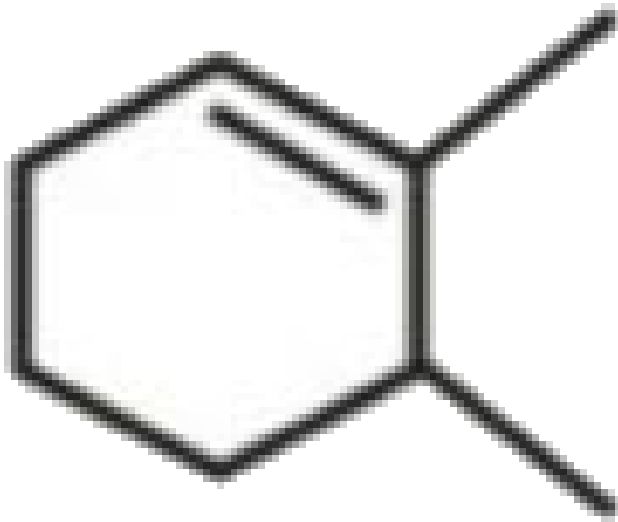
D.



Answer: C



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5.

Which of the following is a correct name of the above compound according to IUPAC conventions ?

A. 1,4- dimethylcyclohexene

B. 2,3 dimethylcyclohexene

C. 1,5 - dimethylcyclohexene

D. 1,6 dimethylcyclohexene

Answer: D



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6. A hydrocarbon has a molecular formula C_4H_6 . Which of the class cannot have this formula?

A. A cycloalkene

B. A bicycloalkane

C. A diene

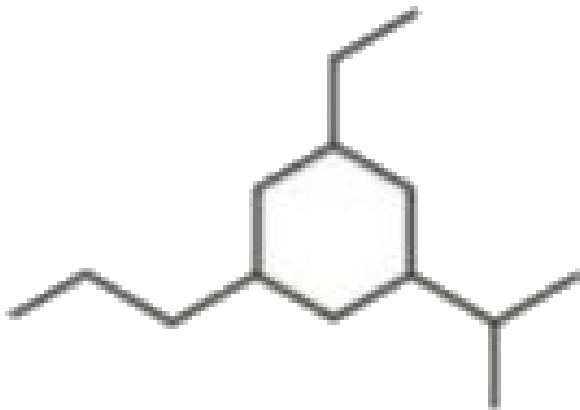
D. A bicycloalkene

Answer: D



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7. The correct IUPAC name of the following compound is



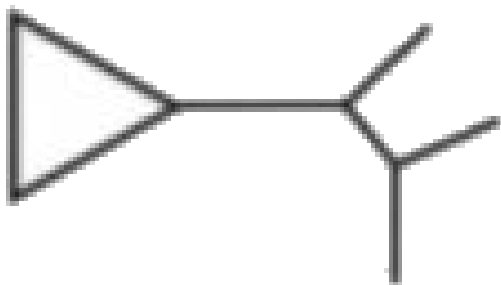
- A. 1 - ethyl- 3- isopropyl -5- propylcyclohexane.
- B. 1 - propyl-3-isopropyl-5- ethylcyclohexane.
- C. 3- ethyl- 5 -isopropylpropylcyclohexane.
- D. 3-ethyl- 5- propyl isopropylcyclohexane.

Answer: A



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8. The correct IUPAC name of the following compound is



A. 1, 2-dimethylpropylcyclopropane.

B. 2- cyclopropyl- 3- methylbutane.

C. 2- methyl- 3- cyclopropylbutane.

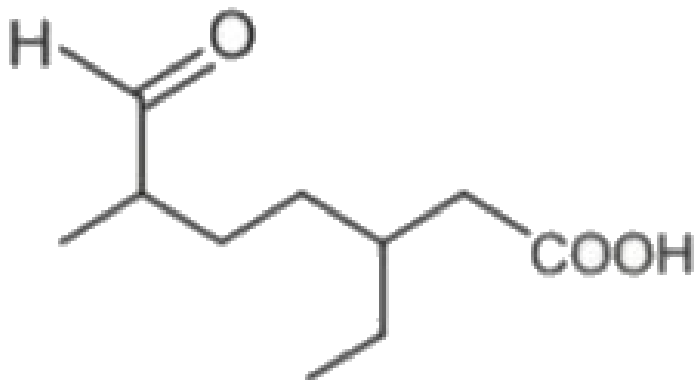
D. isopentylcyclopropane.

Answer: B



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9. The correct IUPAC name of the compound below is



- A. 3-ethyl-6-formylheptanoic acid
- B. 3-ethyl-6-methyl-7-oxoheptanoic acid
- C. 3-ethyl-6-methyl hepta n-7-oic acid
- D. 5-ethyl-2-methyl-1-oxoheptanoic acid

Answer: A



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10. Which of the following compounds cannot have the condensed formula $C_6H_{10}O$?

- A. An aldehyde
- B. A ketone
- C. An alkenol
- D. A cyclic ketone

Answer: D



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11. An organic compound has molecular formula $C_6H_{10}O_2$. Which of the following class of compounds cannot have this molecular formula ?

A. An unsaturated acyclic carboxylic acid

B. A dialdehyde

C. A diketone

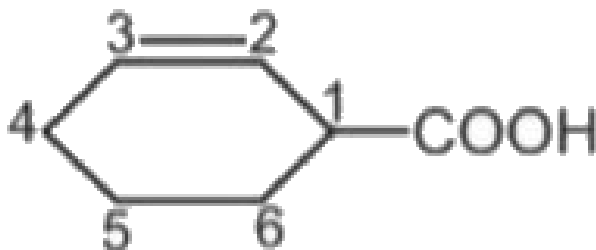
D. An unsaturated, acyclic diol with one double bond

Answer: D



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12. Consider the following compound and its name :



2-cyclohexenoic acid

Something wrong is there in the given name.

What is the mistake in naming of above compound?

A. Numbering is done wrongly.

B. Position of double bond is not specified in the name.

C. Position of double bond is not specified in the name.

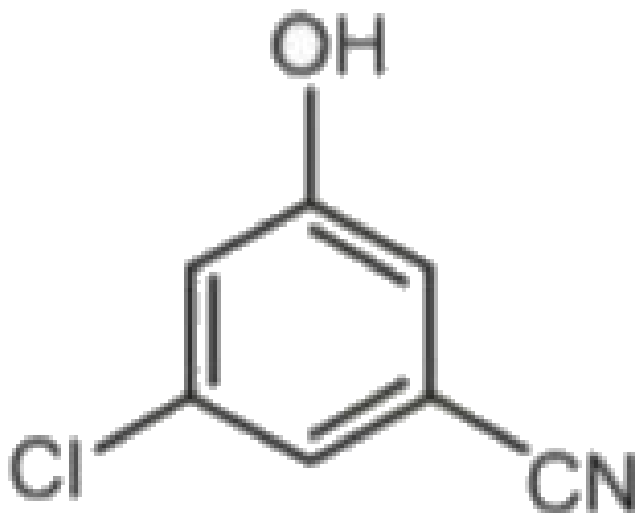
D. Position of -COOH is not specified in the name.

Answer: D



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13. IUPAC name of the following compounds is



A. 3-hydroxy-5-chlorobenzonitrile

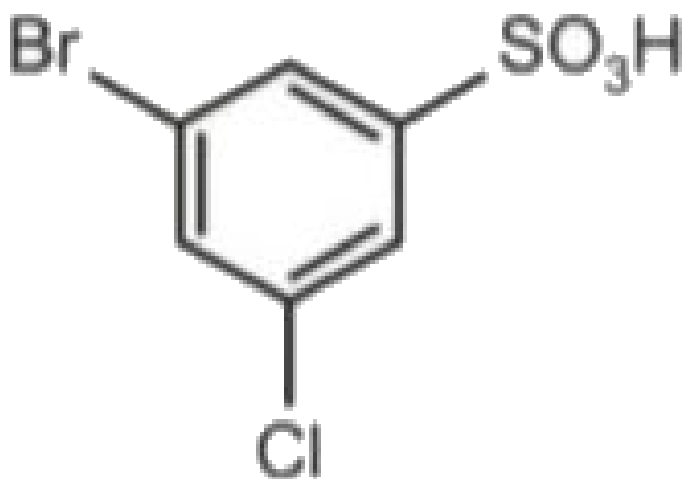
B. 3-chloro-5-hydroxybenzonitrile

C. 3-chloro-5-cyanophenol

D. 3-cyano-5-chlorophenol

Answer: B

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14.

The compounds can be named according to

IUPAC conventions as

A. Metachloro-metabromo benzene
sulphonic acid

B. Metabromo metachloro benzene
sulphonic acid

C. 3-bromo-5-chlorobenzene sulphonic acid

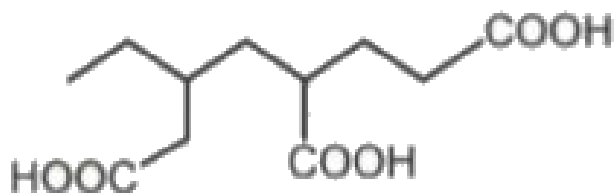
D. 5-bromo-3-chloro benzene sulphonic
acid

Answer: C



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15. IUPAC name of the following compounds is



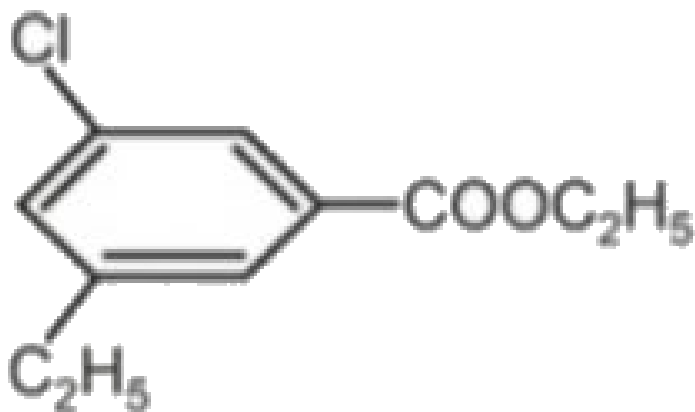
- A. 6-ethyloctane-1,4,8-tricarboxylic acid.
- B. 3-ethyloctane-1,5,8-tricarboxylic acid
- C. 3-carboxy-5-ethyloctane-4,6-dicarboxylic acid.
- D. 4-carboxy-6-ethyloctane-3,4-dicarboxylic acid.

Answer: B



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16. According to IUPAC convention name of the following compound is



A. Ethyl-3-chloro-5-ethylbenzoate

B. Ethyl-3-ethyl-5-chlorobenzoate

C. Metachloro-metaethyl ethylbenzoate

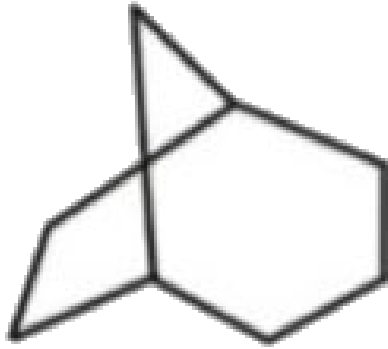
D. None of the above

Answer: A



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17. What is the correct IUPAC name of the following compounds ?



- A. Bicyclooctane
- B. Tricyclooctane
- C. Bicyclo [3.2.1] octane
- D. Bicyclo [1.2.3] octane

Answer: C



18. What is the IUPAC name of following compounds ?



A. 1, 2-dimethylcyclopropylcyclohexane

B. 1, 2-dimethylspiro[2.5] octane

C. 7, 8-dimethylspiro[5.2] octane

D. 1, 2-dimethyl bicyclo[5.2] octane

Answer: B



View Text Solution

19. What is true about IUPAC naming of organic compound ?

A. Two different compounds may have same IUPAC names.

B. Naming is done according to source of occurrence of compounds.

C. Naming is done according to convention rules laid by IUPAC.

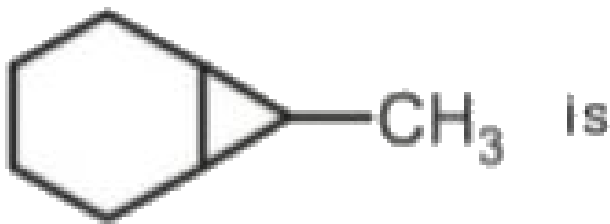
D. None of these

Answer: C



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20. Systematic nomenclature of



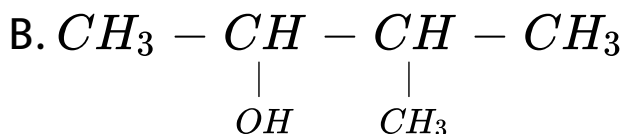
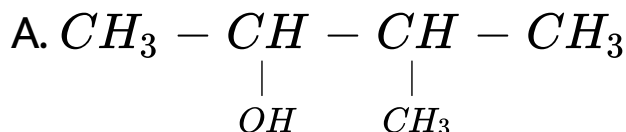
- A. 1-methylbicyclo (4. 1. 0) heptane.
- B. 2-methylbicyclo (4. 1. 0) heptane.
- C. 3-methylbicyclo (4. 1. 0) heptane.
- D. 4-methylbicyclo (4. 1. 0) heptane.

Answer: D



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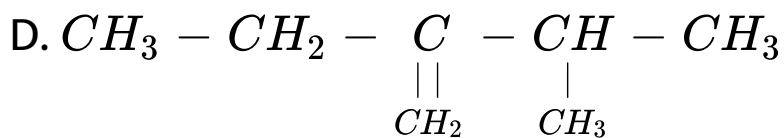
21. Name of some compounds are given. Which one is not correct in IUPAC system ?



3 - methyl-2 butanol



4 - methyl-2 pentyne



2 - ethyl -3- methyl - but - 1 ene

Answer: D



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22. Which of the following contains isopropyl group ?

A. 2,2,3,3 - tetramethylpentane

B. 2 - methylpentane

C. 2,2,3 - trimethylpentane

D. 3,3 - dimethylpentane

Answer: B



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23. Which is not the correct nomenclature ?

A. Ethanedioic acid

B. 4- pentanone

C. pentanedial

D. Pent-2- ene

Answer: B



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24. 2,2,3,3 - tetramethylbutane reacts with Cl_2 such that one H - atom is replaced by Cl atom. IUPAC name of the product obtained is

- A. 2 - chloromethyl-2,2,3- tetramethylbutane
- B. 1 - chloro- 2,2,3,3 - tetramethylbutane

C. Both are acceptable

D. None is acceptable

Answer: B



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25. PCl_5 causes cleavage of ether linkage

R-O-R forming RCl, RCl and $POCl_3$.

$C_5H_{12}O$ on reaction with PCl_5 forms 2 - chloropropane and 1- chloroethane as main

compounds.

Thus $C_5H_{12}O$ is name as

A. 1 - ethoxypropane

B. 2- ethoxypropane

C. 1 - ethylpropane

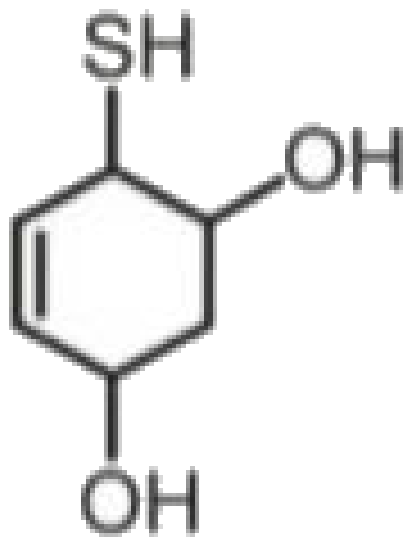
D. 2- ethylpropane

Answer: B



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26. Following compound is named as



- A. 6 - mercaptocyclohex - 4- ene - 1,3- diol
- B. 1-mercaptocyclohex-2-ene-4,6-diol
- C. 1-mercaptocyclohex-5-ene-2,4-diol
- D. 4 mercaptocyclohex-2-ene-1, 5-diol

Answer: A



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27. IUPAC name of the following compound is



A. 2 - methyl-1- ethylcyclohexane

B. 1 - ethyl -2- methylcyclohexane

C. 6 - ethyl -1- methylcyclohexane

D. 1 - ethyl -6- methylcyclohexane

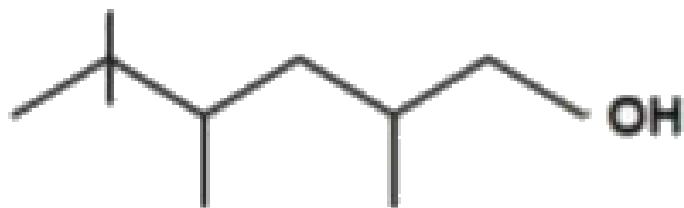
Answer: B



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28. Number of primary secondary and tertiary hydrogen in the following compound are

respectively



A. 1° 2° 3°
18 2 2

B. 1° 2° 3°
16 4 2

C. 1° 2° 3°
17 2 2

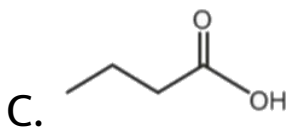
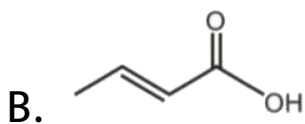
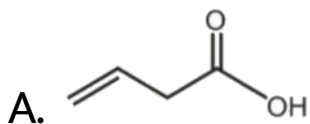
D. 1° 2° 3°
17 2 1

Answer: C



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29. 3 - butenoic acid (or but - 3- enoic acid) is represented as



D. None of these

Answer: A



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30. In the dichlorination reaction of propane a mixture of various products are obtained .
How isomers does the mixture contain?

A. 2

B. 3

C. 4

D. 5

Answer: D



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